

Appl. No. 09/306,813  
Reply to Office Action of October 20, 2005

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A solid state image pickup device provided with a photoelectric converter portion having a plurality of pixels disposed in a row, a horizontal charge transfer portion for horizontally transferring the charges generated in said photoelectric converter portion, a charge/voltage converter portion for converting the charges transferred by said horizontal charge transfer portion into voltages comprising:

a horizontal transfer register;

a first switch ~~connected~~ operable to selectively ~~apply a first pulse signal or a floating level to connect~~ a first input of the horizontal transfer register to one of a group comprised of a first pulse signal, a fixed voltage level, and a float level; and

a second switch ~~connected~~ operable to selectively ~~apply a second pulse signal or a fixed voltage level to connect~~ a second input of the horizontal transfer register to one of a group comprised of a second pulse signal, a fixed voltage level, and a float level.

2. (Currently Amended) A method for driving the horizontal read-out of a solid state image pickup device provided with a photoelectric converter portion having a plurality of pixels in a row, a horizontal charge transfer portion for horizontally transferring the charges generated in said photoelectric converter portion, a charge/voltage converter portion for

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converting the charges transferred by said horizontal charge transfer portion into voltages, wherein

in a first mode, ~~applying~~ a first pulse signal for driving said horizontal charge transfer portion, a second pulse signal for reading out the charges generated ~~in~~ from said photoelectric converter portion to said horizontal charge transfer portion, a third pulse signal for sweeping out the charges generated in said photoelectric converter portion, and a fourth pulse signal for discharging the charges transferred to said charge/voltage converter portion, are all selectively supplied to said solid state image pickup device,

in a second mode, selectively replacing at least one of the first through fourth pulse signals with a floating level and ~~wherein subsequently applying another driving a different pulse signal is applied~~ to the same input at which the said one pulse signal is replaced with the floating level, the driving pulse being replaced.

3. (Currently Amended) A method for driving the horizontal read-out of a solid state image pickup device provided with a plurality of photoelectric converter portions being arranged in a plurality of rows, each row composed of a plurality of pixels ~~in a row~~, and a plurality of horizontal charge transfer portions for horizontally transferring the charges generated in respective rows of pixels ~~in the plurality of photoelectric converter portions~~, wherein,

a switch circuit selects between two modes, comprising:

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a first mode in which the switch circuit passes drive pulses generated by a pulse generator to the horizontal charge transfer portions, ~~or~~ and

a second mode in which the switch circuit replaces at least one of the drive pulses with a floating level, and wherein

~~another~~ a different driving pulse is subsequently applied to the same input at which the driving pulse is replaced with the floating level, ~~the driving pulse being replaced.~~

4. (Previously Presented) The solid state image pickup device of claim 1, wherein all of the drive pulse signals are replaced.

5. (Currently Amended) A solid state image pickup device being provided with a plurality of photoelectric converter ~~portion~~ portions arranged in a plurality of rows, each row having a plurality of pixels ~~in a row~~, a plurality of horizontal charge transfer ~~portion~~ portions having ~~a plurality of rows of transfer elements~~ for horizontally transferring the charges generated in said photoelectric converter ~~portion~~ portions, and a plurality of charge/voltage converter ~~portion~~ portions for converting the charges transferred by ~~said~~ each horizontal charge transfer portion into voltages, further comprising:

~~a transfer register;~~

a first switch ~~connected~~ operable to selectively ~~apply a first pulse signal or a floating level to~~ connect a first input of at least one of the horizontal transfer register ~~registers~~ to one

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of a group of signals comprised of: a first pulse signal, a fixed voltage level, and a float level;  
and

a second switch ~~connected~~ operable to selectively ~~apply a second pulse signal or a floating level to~~ connect a second input of at least one of the horizontal transfer register registers to one of a group of signals comprised of: a second pulse signal, a fixed voltage level, and a float level.

6. (Currently Amended) A solid-state image pick-up device comprising:

a timing pulse generator;

a horizontal signal transfer device and switching circuitry connected between the timing pulse generator and the horizontal signal transfer device wherein the switching circuitry ~~selectively connects~~ is operable to selectively connect ~~one of an output from the timing pulse generator, a fixed voltage level and a floating level to~~ an input of the horizontal signal transfer device to one of a group comprised of: the timing pulse generator, a fixed voltage level, and a floating level.